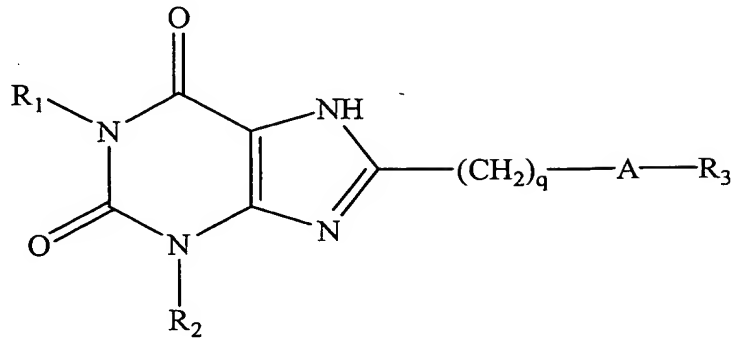
THAT WHICH IS CLAIMED IS:

1. A compound of formula (I):



(I)

wherein:

A is a 5- or 6-membered aromatic or heteroaromatic ring containing 0 to 4 heteroatoms selected from the group consisting of N, O, and S;

R_1 or R_2 is of the formula (i):

$$(CH_2)_r——A'——R_4 \qquad \textbf{(i)}$$

wherein:

A' is a 5- or 6-membered aromatic or heteroaromatic ring containing 0 to 4 heteroatoms selected from the group consisting of N, O, and S;

r is an integer ranging from 1 to 20;

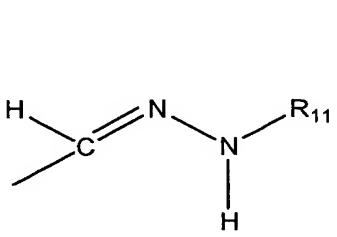
R_4 is selected from the group consisting of H; NH_2; $(CH_2)_sOH$, wherein s is an integer ranging from 1 to 8; $R_{14}COOH$, wherein R_{14} is an alkyl or alkylidene group having 1 to 8 carbon atoms, halo, NHR_8, NR_8R_9, $NHCOR_8$, NR_8COR_9, SO_3H and PO_3H_2;

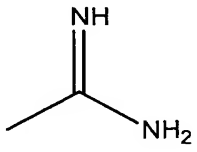
R_3 is selected from the group consisting of H, NH_2, $R_{15}COOH$, wherein R_{15} is an alkyl or alkylidene group having 1 to 8 carbon atoms, and $(CH_2)_tOH$, wherein t is an

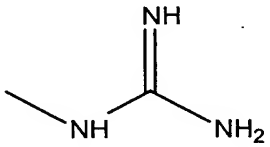
integer ranging from 1 to 8; halo, NHR_8, NR_8R_9, $NHCOR_8$, NR_8COR_9, SO_3H and PO_3H_2;

q is an integer ranging from 1 to 8;

or R_1 is a C_1-C_8 alkanyl group, C_2-C_8-alkenyl- or C2-C8 -alkynyl- group which is optionally substituted by -CN, $-CH_2NR_6R_7OH$, $-OR_8$, $-NR_6R_7$, $-NHCOR_8$, $-NHCONR_6R_7$, halogen, $-OCOR_8$, $-OCH_2COOH$, $-OCH_2COOR_8$, $-SO_2R_5$, -S-R_5, -NHCONH phenyl, $-OCH_2-CONR_6R_7$, $-OCH_2CH_2OH$, $-SO_2-CH_2-CH_2-O-COR_8$, $-OCH_2-CH_2-NR_6R_7$, $-SO_2-CH_2-CH_2-OH$, $-CONHSO_2R_8$, $-CH_2CONHSO_2R_8$, $-OCH_2CH_2OR_8$, -COOH, --$COOR_8$, $-CONR_6R_7$, -CHO, $-SR_8$, $-SOR_8$, $-SO_2R_8$, $-SO_3H$, $-PO_3H_2$, $-SO_2NR_6R_7$, $-OCH_2-CH_2OCOR_8$, -CH=NOH, $-CH=NOR_8$, $-COR_9$, $-CH(OH)R_9$, $-CH(OR_8)_2$, $-CH=CH-R_{10}$, $-OCONR_6R_7$,

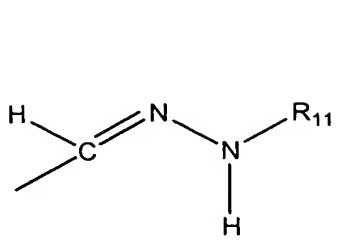
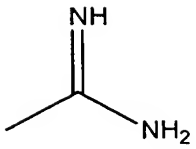
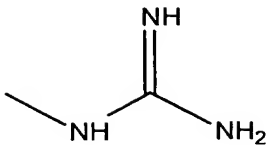






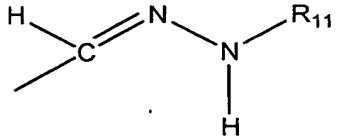
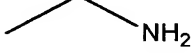
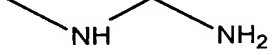
or by 1,3-dioxolane or 1,3-dioxane which is optionally mono- or polysubstituted by methyl; or

denotes phenyl-C_1-C_6-alkylene, phenyl-C_2-C_6-alkenylene or phenyl-C_2-C_6-alkynylene, in which the phenyl ring is optionally substituted, either directly or via a C_1-C_4-alkylene group, with one or more of the following groups: -C_1-C_3-alkyl, -CN, $-CH_2NR_6R_7$, $-NO_2$, -OH, $-OR_8$, $-CH_2-NH-SO_2-R_8$, $-NHCOR_8$, $-NHCONR_6R_7$, halogen, $-OCOR_8$, $-OCH_2COOH$, $-OCH_2COOR_8$, $-CH_2OCOR_8$, $-SO_2R_5$, $-OCH_2-CONR_6R_7$, $-OCH_2CH_2OH$, $-OCH_2-CH_2-NR_6R_7$, $-CONHSO_2R_8$, $-OCH_2CH_2OR_8$, -COOH, $-COOR_8$, $-CF_3$, cyclopropyl, $-CONR_6R_7$, $-CH_2OH$, $-CH_2OR_8$, -CHO, $-SR_8$, --SOR_8, $-SO_2R_8$, $-SO_3H$, $-PO_3H_2$, $-SO_2NR_6R_7$, $-OCH_2-CH_2OCOR_8$, -CH=NOH, $-CH=NOR_8$, $-COR_9$, $-CH(OH)R_9$, $-CH(OR_8)_2$, $-NHCOOR_8$, $-CH_2CONHSO_2R_8$, $-CH=CH-R_{10}$, $-OCONR_6R_7$, $-CH_2-O-CONR_6R_7$, $-CH_2-CH_2-O-CONR_6R_7$,

or by 1,3-dioxolane or 1,3-dioxane which is optionally mono- or polysubstituted by methyl; or

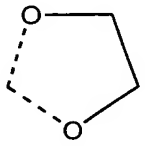
denotes C_3-C_7-cycloalkyl-C_1-C_6-alkylene-, C_3-C_7-cycloalkyl-C_2-C_6-alkenylene-, C_3-C_7 -cycloalkyl-C_2-C_6-alkynylene-, in which the cycloalkyl group may optionally be substituted, either directly or via a C_{1-4}-alkylene group, by -CN, $-CH_2NR_6R_7$, =O, -OH, $-OR_8$, $-NR_6R_7$, $-NHCOR_8$, $-NHCONR_6R_7$, halogen, $--OCOR_8$, $-OCH_2COOH$, $-OCH_2COOR_8$, $-CH_2OCOR_8$, $-SO_2R_5$, $-OCH_2CONR_6R_7$, $-OCH_2CH_2OH$, $-OCH_2-CH_2-NR_6R_7$, $-OCH_2CH_2OR_8$, -COOH, $-COOR_8$, $-CONR_6R_7$, $-CH_2OH$, $-CH_2OR_8$, -CHO, $-SR_8$, $-SOR_8$, $-SO_2R_8$, $-SO_3H$, $-PO_3H_2$, $-SO_2NR_6R_7$, $-OCH_2-CH_2-OCOR_8$, -CH=NOH, $-CH=NOR_8$, $-COR_9$, $-CH(OH)R_9$, $-CONHSO_2R_8$, $-CH(OR_8)_2$, $-NHCOOR_8$, $-CH=CH-R_{10}$, $-OCONR_6R_7$, $-CH_2-O-CONR_6R_77$, $-CH_2-CH_2-O-CONR_6R_7$,

or by 1,3-dioxolane or 1,3-dioxane which is optionally mono- or polysubstituted by methyl; or

denotes a group of the formula A-C_1-C_6-alkylene-, A-CONH-C_1-C_6-alkylene-, A-CONH-C_2 –C_6-alkenylene-, A-CONH-C_2-C_6-alkynylene-, A-NH-CO-C_1-C_6-alkylene, A-NH-CO-C_2-C_6-alkenylene, A-NH-CO-C_2-C_6 alkynylene, A-C_2-C_6-alkenylene- or A-C_2 – C_6-alkynylene, wherein A is a C- or N-linked 5- or 6-membered heterocyclic ring, 5- or 6- membered aromatic ring, or 5-or 6- membered heteroaromatic ring which contains

nitrogen, oxygen or sulphur as heteroatoms and may optionally be mono- or polysubstituted, by C_1-C_4-alkyl, halogen, --OR_8, -CN, --NO_2, -NH_2, -$CH_2NR_6R_7$, -OH, =O, a ketal, -COOH, -SO_3H, -PO_3H_2, -$COOR_8$, -$CONR_6R_7$, -COR_9, -SO_2-R_8, -$CONR_6R_7$ or



R_5 denotes C_1-C_4-alkyl, optionally substituted by OH, $OCOR_8$, NH_2, NR_6R_7 or $NHCOR_8$,

R_6 denotes hydrogen, an optionally substituted C_{3-6}-cycloalkyl group, a branched or unbranched alkyl-, alkenyl- or alkynyl group having up to 10 carbon atoms, preferably a C_1-C_4-alkyl group, which may optionally be substituted by hydroxy, phenyl, substituted phenyl, amino, substituted amino, C_1 to C_8, or it denotes --$(CH_2)_m$—$NHCOOR_8$ wherein m=1, 2, 3 or 4;

R_7 denotes hydrogen, an optionally substituted C_{3-6}-cycloalkyl group, a branched or unbranched alkyl-, alkenyl- or alkynyl group having up to 10 carbon atoms, which may optionally be substituted by hydroxy, phenyl, substituted phenyl, amino, substituted amino, C_1 to C_8, -or it denotes --$(CH_2)_m$-$NHCOOR_8$ wherein m=1, 2, 3 or 4; or R_6 and R_7 together with the nitrogen atom form a saturated or unsaturated 5- or 6-membered ring which may contain as heteroatoms nitrogen, oxygen or sulphur, while the heterocyclic ring may be substituted by a branched or unbranched C_{1-4}-alkyl group, or may carry one of the following groups: --$(CH_2)_n$-NH_2, =O, a ketal - preferably -O-CH_2-CH_2-O-, -$(CH_2)_n$.NH-C_1-C_4-alkyl, -$(CH_2)_n$-N(C_1-C_8-alkyl), -$(CH_2)_n$-$NHCOOR_8$, (n=2, 3, 4,), halogen, -OR_8, -CN, -NO_2, -NH_2, -$CH_2NR_6R_7$, -OH, -COOH, -SO_3H, -PO_3H_2, -$COOR_8$, -$CONR_6R_7$, -SO_2R_8,

R_8 denotes hydrogen, C_1-C_8-alkyl or C_2-C_8-alkenyl or C_2-C_8-alkynyl optionally substituted with CO_2H, a benzyl- or phenyl- group, which is optionally mono- or polysubstituted by OCH_3;

R_9 denotes C_1-C_8-alkyl or C_2-C_8-alkenyl or C_2-C_8-alkynyl optionally substituted with CO_2H, optionally substituted phenyl, optionally substituted benzyl, C_3-C_6-cycloalkyl, and

R_{10} denotes $-COOR_8$, $-CH_2OR_8$, $-CONR_6R_7$, hydrogen, C_1-C_3-alkyl, optionally substituted phenyl, $--CH_2NR_6R_7$;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

2. The compound of claim 1, wherein at least one of R_3 and R_4 is independently selected from the group consisting of SO_3H and PO_3H_2.

3. The compound of claim 1, wherein R_1 or R_2 is a C_1-C_8 alkanyl group, C_2-C_8-alkenyl group or C_2-C_8 alkynyl group which is optionally substituted by NR_6R_7, $-SO_3H$, or $-PO_3H_2$.

4. The compound of claim 1, wherein A is phenyl.

5. The compound of claim 1, wherein A' is phenyl.

6. The compound of claim 1, wherein:

R_1 is a C_1-C_8 alkanyl group, C_2-C_8-alkenyl group or C_2-C_8 alkynyl group which is optionally substituted by NR_6R_7 or $-SO_3H$;

A is phenyl; and

A' is phenyl.

7. The compound of claim 6, wherein at least one of R_3 and R_4 is independently selected from the group consisting of SO_3H and PO_3H_2.

8. The compound of claim 1, wherein said compound is selected from the group consisting of:

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-propylxanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(3-pyridyl)methyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(4-thiazolyl)methyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-(4-sulfonoxybenzyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-methoxypropyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-dimethylamino)propylxanthine;

3-[2-[4-(6-Aminohexanoyl)aminophenyl]ethyl]-8-benzyl-1-propylxanthine;

8-Benzyl-1-propyl-3-[4-(4-sulfonoxyphenyl)butyl]xanthine;

8-Benzyl-1-propyl-3-[2-(4-sulfonoxyphenyl)ethyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-sulfonoxypropyl)xanthine;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

9. The compound of claim 1, wherein said compound is selected from the group consisting of:

8-Benzyl-1-propyl-3-[4-(4-sulfonoxyphenyl)butyl]xanthine;

8-Benzyl-1-propyl-3-[2-(4-sulfonoxyphenyl)ethyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-sulfonoxypropyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-(4-fluorobenzyl)-1-propylxanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(thiophen-2-yl)methyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(1*H*-tetrazol-5-yl)methyl]xanthine;

8-(2-Acetaminobenzyl)-3-[2-(4-aminophenyl)ethyl]-1-propylxanthine;

8-(2-Aminobenzyl)-3-(2-phenylethyl)-1-propylxanthine;

8-Benzyl-3-[2-(3-carboxyphenyl)ethyl]-1-propylxanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(8-sulfonoxyoctyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(5-sulfonoxypentyl)xanthine;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

10. The compound of claim 1, wherein said compound is selected from the group consisting of:

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-propylxanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(3-pyridyl)methyl]xanthine;

3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-(4-sulfonoxybenzyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-methoxypropyl)xanthine;

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-dimethylamino)propylxanthine;

3-[2-[4-(6-Aminohexanoyl)aminophenyl]ethyl]-8-benzyl-1-propylxanthine;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

11. The compound of claim 1, wherein said compound is selected from the group consisting of:

3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(5-sulfonoxypentyl)xanthine;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

12. A composition comprising a compound of claim 1 in a pharmaceutically acceptable carrier.